WV-0236 #4

S.O. NO. _____ 930/~~20~~ NO. 38037A

TITLE: METHYLS COLUMNS UPGRADE - INSULATION
CEDCG INSTALLER - VADAKIN PAINTER

PE43C1
SITE LOCATION
(DEPT. 105010)

PACKAGE CONTENT

TRANS	DWG.	F.S.	SPEC.	APPROVED	INSTMTN	S.O.	PROC.	TITLE	NAME
1	1		1				1	MAINTENANCE	J. E. BOLEY
5	5		5				5	FIELD CONST	B. E. BESS
1			1				1	OPERATING DEPT. CONTACT	R. L. FORESTER
1								DEPT. HEAD	S. L. CURTIS
1								MAINT. DEPT. HEAD	G. W. WOLFERT
1							1	SAFETY DEPT.	E. L. DOERFLEIN
1								EPC	F. E. DAILEY
1	1		1				1	PROJECT COORDINATING ENG.	D. L. ESTEP
1-0				1-0	1-0		1	JDE FILE	930-38037
1							1	MAINTENANCE COORDINATOR	A. A. COSPER
								STORES SUPERVISION	
1								ENG. GROUP LEADER	R. A. HAZLEWOOD
1								FIELD CONST. STORES	G. BROWN
1								MAINT. V.O. COORDINATOR	R. B. WILLIAMS
1	1		1				1	VADAKIN	R. DULANEY
								MAINT. INSTRUMENT	
								MAINT. INSULATION	
1				1				DWG/RECORDS	B. J. SECKMAN
1								MECHANICAL	C. L. WARNER
								ELECTRICAL	
								INSTRUMENT	
								CIVIL	
								PROCESS	
								BILLING	R. M. HILL 568
3	8		9				12	TOTAL	

PLAINTIFF'S EXHIBIT
UC-2959

INSTALLATION

- ☒ SHUT DOWN REQ'D
- ☐ DETERMINED BY DEPT. REQ'D COMPLETION
- ☒ DATE 3-31-87

ISSUE STATUS

	PARTIAL	FINAL	COMPLETE	REVISION
MECH.	☐	☐	☐	☐
ELEC.	☐	☐	☐	☐
INST.	☐	☐	☐	☐
INSUL	☐	■	☒	☐

SAFETY CONSIDERATION

- ■ BY D L ESTEP
- ■ WILL BE PROVIDED BY 2-2-87
- ☐ WILL BE PROVIDED WITH FINAL ISSUE
- ☐ SEE ATTACHED
- ☐ SAFETY ASPECTS REVIEWED-NO ADDITIONAL CONSIDERATION NECESSARY

ENVIROMENTAL IMPACT ☐ SEE ATTACHED ☐ WILL BE PROVIDED BY _____
☐ WILL BE PROVIDED WITH FINAL ISSUE ■ REVIEWED-NO ADDITIONAL CONSIDERATION NECESSARY

ATTACHMENTS

SAFETY REVIEW FORM
(930'S ONLY - INITIAL RELEASE)

EQUIP. DWG. FOR
S-67, 68, 69, 70, 71, 72,
H-346 & H-367
SPEC. 2M
PROCEDURES:
SECTION II-10, 11-11-86
SECTION II-13, 11-11-86
PROJ. SCH.
LOC. DWG. A-0908

GENERAL NOTES. INSTRUCTIONS:

This project provides for the removal of badly deteriorated asbestos insulation on the six Methyls columns, S-67, S-68, S-69, S-70, S-71, and S-72 and their calandrias and the insulation of S-71 and S-72 columns and calandrias with calcium silicate insulation. The insulation on the six columns is causing a health and environmental hazard in the Silanes Department because the weather barrier on the insulation has failed and chunks and fibers of asbestos are being released to the atmosphere and ground. This project will correct this condition and eliminate the health hazard of asbestos being emitted off the six columns.

- CEDCG TO STRIP EXISTING INSULATION FROM COLUMNS & PIPING.
- VADAKIN TO SANDBLAST & PAINT S-71, 72, H-346, H-367, ASSOCIATED PLATFORMS, & PIPING. J.E. BOLEY TO COORDINATE
- CEDCG TO INSULATE S-71, 72, H-346, H-367 & ASSOCIATED PIPING.

ISSUED BY: D.L. ESTEP | DATE: 12-10-86 | SAFETY REVIEWED BY:

FORM REVISED 7-14-86

UCC 016312

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TITLE: Methyls Columns Upgrade
JOB NO.: 930-38037A
RELEASED FOR CONSTRUCTION: 12-10-86

WORK DESCRIPTION

Please provide labor, tools, and materials to provide the following work at UCC Plant, Sistersville, WV.

1. Provide scaffolds as required for access to the following equipment, S-67, 68, 69, 70, 71, 72, associated calandras and piping (per Plant Safety and Health Procedures Manual, Section II-10, Pages 1-5, dated 11-11-86).

2. Remove weather barrier and insulation from the following equipment, S-67, 68, 69, 70, 71, 72, associated calandras and piping per Plant Safety & Health Procedures Manual, Section II-13, Pages 1-5, revised 11-11-86.

3. Equipment S-71, 72, and associated calandras will be sandblasted and painted by others after existing insulation is removed. The schedule for the work associated with S-71 and S-72 will depend on production requirements.

4. Following the sandblasting and painting of Equipment S-71, 72, associated platforms, ladders and calandras; new insulation and weather barriers shall be installed on S-71, 72, associated calandras, and piping per Insulation Spec. 2M, Page 1 & 2, dated 6-86.

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EQUIPMENT AND PIPING - INSULATION SCHEDULE I

EQUIPMENT	APPROXIMATE SIZE	EXISTING ASBESTOS INSULATION THICKNESS	NEW INSULATION THICKNESS	REMARKS
S-67	5'-0" X 118'-0"	4"	None	
S-68	4'-0" X 65'-0"	4"	None	
S-69	7'-0" X 119'-4"	4"	None	
S-70	7'-0" X 119'-4"	3"	None	
S-71	2'-6" X 116'-0"	3"	2"	4'-0" Dia. Accumulator
S-72	2'-0" X 69'-0"	3"	2"	3'-0" Dia. Accumulator
H-340	1'-6" X 8'-0"	4"	None	For S-67
H-342	1'-3" X 10'-0"	4"	None	For S-68
H-344	1'-10" X 9'-6"	4"	None	For S-69
H-346	10" X 6'-0"	3"	3"	For S-71
H-363	1'-6" X 8'-0"	4"	None	For S-67
H-364	1'-3" X 10'-0"	4"	None	For S-68
H-365	1'-10" X 9'-6"	4"	None	For S-69
H-367	12" X 6'-0"	3"	3"	For S-72
Calandra Nozzles (20)		4"	3"	For H-346 & 367
Remove asbestos insulation from the following pipe lines:				
1" Pipe	X 120'	2"	See Schedule II	
1-1/2" Pipe	X 240'	2"	See Schedule II	
2" Pipe	X 160'	2"	See Schedule II	
3" Pipe	X 100'	2"		
4" Pipe	X 220'	2"		
6" Pipe	X 30'	2"	See Schedule II	
8" Pipe	X 70'	2"	See Schedule II	
10" Pipe	X 40'	2"		
14" Pipe	X 120'	2"		
16" Pipe	X 120'	2"		

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EQUIPMENT AND PIPING - INSULATION SCHEDULE II

Install new insulation on the following pipe lines:

		THICKNESS	SPEC
1"	Pipe X 120'	2"	2M
1-1/2"	Pipe X 60'	2"	2M
2"	Pipe X 100'	2"	2M
6"	Pipe X 30'	2"	2M
8"	Pipe X 40'	2"	2M

- All work associated with the installation of new insulation to be charged to Account: 930-38037. All other work to be charged to Account: 838-38158.

DLE:jc
0054b

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SAFETY REVIEW

(930's Only)

930-38037A

The following signed statements shall be included on the Transmittal for initial design packages (or Design Reports) issued by S&UI Engineering at Sistersville.

☐ The Project has been safety reviewed by a qualified engineer and the proper documentation is in the Project File.

☐ Design Safety Review completed by _____ .
(Signature of Reviewer)

☐ Safety Review Board is required and will be held by _____ .
(Date)

☐ Safety Review Board is not required.

☐ Safety Considerations Report ☐ is attached -- or -- ■ will be issued on 2-2-87 .
(Date)

■ The safety aspects of this design have been reviewed and approved. *

D. L. Potts
(Engineering Group Leader)
or
(Project Manager)

* This statement shall be used only for minor rearrangement work and indicates that a process engineer has not reviewed the design package.

7/9/81

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STANDARD PRACTICE

THERMAL INSULATION

UNION CARBIDE TMS
INTER DIVISION

MATERIAL 2M:2M-B
PAGE 1 OF 2 2A:2A-B
DATE June 1986 2P:2P-B
2SS:2SS-B

SERVICE	TEMP. RANGE
This specification covers the insulation material for use on process, steam, and steam-traced lines and equipment. (DO NOT USE IN ETHYLENE OXIDE SERVICE.) This insulation material may also be used over self-limiting type electric tracing systems.	10°C to 650°C (50°F to 1202°F)
LIMITATIONS Will absorb water, weather barrier must be applied immediately after installation. Not recommended for use in lethal service.	**MANDATORY ADD'L. SPECS** GS; AP-1; AP-2
PRECAUTIONS Excessive dusting may occur during fabrication. If so, proper respiratory protection should be provided.	

SPEC. IDENTIFICATION

2P Calcium Silicate with plastic	2P-B Calcium Silicate with plastic plus cushioning blanket
2M Calcium Silicate with mastic	2M-B Calcium Silicate with mastic plus cushioning blanket
2A Calcium Silicate with aluminum	2A-B Calcium Silicate with aluminum plus cushioning blanket
2SS Calcium Silicate with stainless steel	2SS-B Calcium Silicate with S.S. plus cushioning blanket

ACCEPTABLE MAJOR MATERIAL COMPONENTS

COMPONENT	MATERIAL	TRADE NAME	MANUFACTURER
PIPE COVERING AND BLOCK	Calcium Silicate	Kaylo 10-AF Thermo-12 Super Caltemp NA	Owens-Corning Fiberglas Corp. Manville Corp. Pabco Div. of Louisiana Pacific Corp.
WEATHER BARRIER	Mastic	WC-5 Jaxsan 600 L&L 300 Mastic Sealfas GPM #35-00 Vi-Cryl Cadalon 500	Vimasco Corp. Plastic Coatings Corp. L&L Coating Corp. Foster Div. of H. B. Fuller Co. Childers Products Co. Epolux Mfg. Corp.
	Plastic (PVC)	Ceel-Tite 300 Series UVR Perma-Jac "SX"	Ceel-Co. Topline Products Inc.
	Aluminum (Smooth or 3/16" Corrugated)	Type 3003 or 5005, H14 alum. roll jacketing with poly-ethylene coated Kraft paper vapor barrier. .010"min.up to 24" dia. .016"min.24"dia.and above .020"when crimping and goring of jacket is required	Childers Products Co. Premetco International, Inc. RPR Products, Inc. Quality Service Metals Co.
	Stainless Steel	.010"thk. type 301, 302 or 304 S.S. roll jacketing with polyethylene coated Kraft paper vapor barrier	Childers Products Co. Premetco International, Inc. RPR Products, Inc. Quality Service Metals, Inc.
CUSHIONING BLANKET (1)	Glass Wool (Above 800°F and all SS surfaces)	Temp-Mat Burl-Glas	Pittsburgh-Corning Corp. Burlington Glass Fabrics Co.
	Glass Wool (800°F or below)	Fiberglas TIW Type II Spin-Glas No. 1001 Ultralite No. 300 (425°F max)	Owens-Corning Fiberglas Corp. Manville Corp. Certain-Teed Corp.

NOTES

(1) Cushioning Blanket normally required only on equipment larger than 10' O.D. and operating above 200°C (392°F).

Calcium Silicate shall conform to ASTM Standard Specification C533 (latest revision).

UCC 016317

SUBJECT: PROVISIONS FOR ERECTING AND USING SCAFFOLDS

1.0 GENERAL REQUIREMENTS

1.1 All ~~Maintenance~~ Supervisors having the responsibility for the erection of scaffolds, or who supervise employees using scaffolds, shall read and become familiar with the requirements of Sections ~~A~~ 1 and ~~B~~ 4 of these provisions.

1.2 Appropriate annual retraining is to be provided to all ~~Maintenance~~ Supervisors ~~and~~ to all craftspersons ~~who either~~ erect or use scaffolds as ~~described below.~~ A record of this retraining is ~~to be maintained~~ in the STAIRS ~~Program.~~

1.2.1 Maintenance Supervisors. ~~Maintenance Supervisors will provide training in the General Requirements, the User Requirements, and the Specific Requirements for Tubular Welded Frame Scaffolds (Safway), as set forth in~~ Sections 2, 3, and 4 of these ~~provisions.~~

1.2.2 All Other Hourly Personnel. ~~The Supervisor of each work group will provide training for his/her~~ employees as ~~described in 1.2.1 above.~~

1.3 All scaffolds and other temporary work platforms shall have an approval tag enclosed in plastic attached, signed, and dated by a qualified craft worker involved in the erection and by his/her supervisor.

The original approval is valid for a 30-day period. If the scaffold or temporary work platform is to be used beyond that period it may be revalidated for another 30 days if inspected by a supervisor. He/She will certify that revalidation by dating and signing the approval tag.

After 60 days the scaffold or temporary work platform must be inspected and may be revalidated as above by the Maintenance Area Supervisor for an additional 30-day period. All further 30-day extensions will require revalidation by the Maintenance Area Supervisor.

1.4 All scaffolds and temporary work platforms shall have a prominently displayed User Requirements tag in a plastic envelope attached at the time of erection. This tag is not to be removed until the scaffold is dismantled.

1.5 No employee is to permanently remove or alter a structural member of an existing scaffold except at the request of a supervisor. Such permanent removal or alteration will require the supervisor to revalidate the approval tag.

Responsible for review and updating of this procedure - Mtce.

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1.6 Scaffolds or work platforms are to be erected in such a manner as not to obstruct normal access to operating valves, ladders, walkways, or fire protection equipment.

1.7 The footing or anchorage for scaffolds shall be sound, rigid, and capable of carrying the maximum intended load without settling or displacement. Unstable objects shall not be used to support scaffolds or planks.

1.8 The poles, legs, or uprights of scaffolds shall be plumbed, and securely braced to prevent swaying or displacement. Scaffolds shall be anchored or attached to permanent structures.

1.9 A ladder or equivalent safe access shall be provided to all scaffolds. Ladders are to be metal where practical. If wood is used, it will be 2 x 4 inch lumber. Ladders providing access to scaffolds are to extend a minimum of three and one-half feet above the level of the top-most working platform.

1.10 Platform planks shall be laid with their edges close together so the platform will be tight with no spaces through which tools or fragments of material can fall.

1.11 Platform planks are to be appropriately secured at both ends to prevent shifting or tipping.

1.12 Scaffold planks shall extend over their end supports not less than six inches no more than 18 inches. The responsible supervisor may authorize the trimming of a scaffold plank to meet this requirement if a plank of suitable length cannot be secured in time to meet the schedule of the job requiring the scaffold.

1.13 All scaffold planks shall be two inches thick by 12 inches in width Douglas Fir per West Coast Lumberman's Specification 171-A.

1.14 Scaffold planks may be notched to fit around obstructions up to a maximum notch depth of three inches. A plank that has been notched on one edge may not be notched on the opposite edge. The OSHA-mandated minimum width of nine inches for a scaffold plank is to be maintained in a straight path along the entire length of the plank.

1.15 Nails or bolts used in construction of scaffold shall be of adequate size and sufficient numbers at each connection to develop the designed strength of the scaffold. Nails shall be driven at an angle so as not be subjected to a striight pull, and shall be driven full length. Double-head nails will be permitted outside of work area only. They shall not be used to attach hand rails. Good judgement should be used in the use of double-headed nails, to assure they do not present a personnel hazard.

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1.16 Wire used to guy a scaffold to a building or other permanent structure, or to secure platform planking or guardrails is to be No. 9 steel or equivalent. Two strands should be used, and sufficient tension provided to prevent dislodgement of the structural member being secured. Sharp wire ends are to be tucked in to prevent personnel hazard.

1.17 Guard rails of at least 2 x 4 inches in nominal cross section, and not less than 36 inches nor more than 42 inches high are to be installed on open sides and ends of all scaffold platforms more than 10 feet above the ground. When required, mid-rails will not be installed on the side of a scaffold where ladder access is provided if such installation will interfere with safe access to the scaffold.

1.18 Toe boards of at least 2 x 4 inches in nominal cross section are to be installed on the open sides and ends of all platforms more than 10 feet above the ground. The 4-inch dimension of the toe board is to be in the vertical plane.

1.19 When scaffolds are erected over a walkway or other heavily-traveled area, or when continuous work is performed under the scaffold, the entire open area between the toe board and the guard rail is to be screened with No. 18 gauge U.S. Standard Wire one-half inch mesh or equivalent.

1.20 Where planking is lapped, each plank shall lap its end supports at least 12 inches. Where the ends of the planks abut each other to form a flush floor, the butt joint shall be at the centerline of the pole. The abutted ends shall rest on separate bearers.

1.21 When a scaffold turns a corner, the plantform planks shall be laid to prevent tipping.

1.22 It is recognized that some scaffolds cannot reasonably meet all construction requirements set forth herein, due to physical limitations or other factors. Some variation from these requirements may be permitted, as long as such variation does not detract from the basic safety of the scaffold. Major variations will require inspection and formal approval by the Maintenance Supervisor which is expected to be forthcoming only in special circumstances.

2.0 SCAFFOLD USER REQUIREMENTS

Regardless of craft, each user of a scaffold is to observe the following requirements.

2.1 No scaffold may be mounted by a user without first confirming that the attached approval tag has been properly signed and dated within the past 30 days.

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2.2 Each user has an individual responsibility to inspect a scaffold both from ground level before starting to mount the scaffold, and once again when reaching each working platform. A scaffold that does not meet the General Requirements set forth in Section ~~A~~ 1 of these provisions is not to be used until a responsible supervisor has been notified and the necessary corrective action has been taken to assure compliance with Section ~~A~~ 1.

2.3 All work done by a user from a scaffold is to be carried out from within the attached guard rails.

2.4 No scaffold is to be moved horizontally while in use or otherwise occupied by a user.

2.5 No alterations to a scaffold are to be made by a user, except when it is necessary to temporarily move a scaffold plank or guardrail in order to facilitate the work being carried out. It is the responsibility of the user who moves the scaffold plank or guardrail to return it to the original position before leaving the platform.

2.6 Users shall not work on scaffold platforms which are covered with ice or snow, unless such material has been removed and the planking sanded to prevent slipping.

2.7 Tools, materials, and debris shall not be allowed to accumulate on scaffold platforms in quantities to cause a hazard. Any equipment part removed from facilities through use of the scaffold is not to be placed on the scaffold platform if the weight of such part exceeds approximately 150 pound (average weight of one human). Examples: Large valves, steam coils, or heat exchanger heads.

3.0 SPECIFIC REQUIREMENTS FOR TUBULAR WELDED FRAME SCAFFOLDS (SAFWAY)

3.1 Scaffolds shall be properly braced by cross bracing or diagonal braces, or both, for securing vertical members together laterally, and the cross braces shall be of such length as will automatically square and align vertical members so that the erected scaffold is always plumb, square, and rigid. All brace connections shall be made secure.

3.2 Scaffold legs shall be set on adjustable bases, or plain bases placed on mud sills or other foundations adequate to support the maximum intended load.

3.3 To prevent movement, the scaffold shall be secured to the building or structure at intervals not to exceed 30 feet horizontally and 26 feet vertically.

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3.4 Frames and accessories for scaffolds shall be maintained in good repair and every defect, unsafe condition, or non-compliance with this section shall be immediately corrected before further use of the scaffold. Any broken, bent, excessively rusted, altered, or otherwise structurally damaged frames or accessories shall not be used.

3.5 One-lift Safway scaffolds do not require guardrails by either OSHA or plant regulations. However, builders of one-lift Safway scaffolds are actively encouraged to include guardrails if such inclusion will improve user safety.

4.0 SPECIFIC REQUIREMENTS FOR WOODEN SCAFFOLDS

4.1 All lumber used in the building of scaffolds will be an approved grade such as western white spruce, construction grade.

4.2 Where wood poles are spliced, the ends shall be squared and the upper section shall rest squarely on the lower section. Wood splice plates shall be provided on at least two adjacent sides and shall not be less than 4 feet 0 inches in length, overlapping the abutted ends equally, and have the same width and not less than the cross-sectional area of the pole. Splice plates of other materials of equivalent strength may be used.

4.3 All pole scaffolds shall be securely guyed or tied to the building or structure. Where the height or the length exceeds 25 feet, the scaffold shall be secured at intervals not greater than 25 feet vertically and horizontally.

4.4 Putlogs or bearers shall be set with their greater dimensions vertical, long enough to project over the ledgers of the inner and outer rows of poles at least three inches for proper support.

4.5 Ledgers shall be long enough to extend over two poles spaces. Ledgers shall not be spliced between the poles. Ledgers shall be reinforced by bearing blocks securely nailed to the side of the pole to form a support for the ledger.

4.6 Diagonal braces shall be provided to prevent the poles from moving in a direction parallel with the wall of the building, or from buckling.

4.7 Cross bracing shall be provided between the inner and outer sets of poles in independent pole scaffolds. The free ends of pole scaffolds shall be cross braced.

4.8 Full diagonal face bracing shall be erected across the entire face of pole scaffolds in both directions. The braces shall be spliced at the poles.

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SUBJECT: Handling, installing, removing and/or disposing of material containing asbestos.

1.0 PURPOSE:

1.1 To provide a safe procedure for the handling of material containing asbestos. Asbestos is defined to include Chrysotile, Amosite, Crocidolite, Tremolite, Anthophyllite and Actinolite.

2.0 INTRODUCTION:

2.1 Excessive exposure to asbestos fiber is harmful to your health. These fibers have been associated with cancer of the lungs, throat, stomach, colon and rectum. The maximum permissible exposure is two (2) fibers, longer than five (5) micrometers, per cubic centimeter of air when averaged over 8 hours. At no point in time may an employee be exposed to greater than 10 fibers per cubic centimeter of air.

2.2 Asbestos fiber is found in insulation used on piping, equipment, etc., that was installed earlier than about 1973 or 1974. This was when the Sistersville Plant deleted asbestos containing insulation from Stores and went to an "asbestos free" insulation.

2.3 Asbestos fibers are found in some brake linings used on automobiles, trucks and our work vehicles.

2.4 Asbestos fibers can also be found in the wall coverings, insulation, etc., used in the construction industry on older buildings.

3.0 RESPONSIBILITY:

3.1 The appropriate first line supervisor and craftspersons are responsible for controlling the safe removal and disposal of asbestos-containing material.

3.2 Based on size, complexity and location, the Safety and Health Department shall be notified prior to the start of the job. At that time a decision will be made as to the need for and extent of any monitoring. ~~The Supervisor of the personnel handling the asbestos-containing material and the actual individual shall request the monitoring~~.

3.3 Proper Housekeeping is the responsibility of each individual in performance of the work assignment. Appropriate equipment for prevention of dust release and clean-up after the job ~~has~~ must been provided. Please use this equipment but never use a broom, brush or blow with air when handling materials containing asbestos.

Responsible for review and update of this procedure - Maintenance Department

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3.4 The Environmental Protection Control Staff shall notify the EPA of the annual amount of asbestos activity in the plant.

3.4.1 The EPA must also be notified prior to large scale jobs. These are defined as stripping of more than 260 linear feet of pipe insulation or more than 160 square feet. The Insulator Supervisor shall notify the EPA Staff prior to such jobs.

(R) 3.5 The responsible supervisor shall ensure that employees using asbestos-containing material have received proper training on the hazards of asbestos. ~~This will be done every six months by the Insulator Supervisor or a designated training supervisor~~.

3.6 If an employee must wear respiratory protection, the supervisor shall assure that the employee is medically approved and has received proper training on the use of respiratory protection.

(R) 3.7 The individual craftsperson is responsible for wearing respiratory equipment when required. ~~The first line supervisor in the operating dept. shall ensure that the operators know and follow the guidelines outlined in this procedure~~.

4.0 PROCEDURE:

4.1 All asbestos-containing material will be handled with extreme care and our goal is to take appropriate measures to eliminate all airborne asbestos fibers.

4.2 When asbestos is involved, barricade tape will be used to isolate the area and caution signs will be posted at all access routes to the work area. These signs will be located at a distance which allows an employee to take the necessary protective steps before entering the area. This sign will comply with OSHA specifications and shall read:

ASBESTOS DUST HAZARD
AVOID BREATHING DUST
WEAR ASSIGNED PROTECTIVE EQUIPMENT
DO NOT REMAIN IN AREA UNLESS YOUR WORK REQUIRES IT
BREATHING ASBESTOS DUST MAY BE HAZARDOUS TO YOUR HEALTH

4.3 Asbestos-containing material will be handled, mixed, applied, removed, cut, or otherwise worked on in a wet state sufficient to prevent the emission of airborne asbestos fibers in excess of exposure limits.

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4.4 Asbestos-containing cement, mortar, coatings, plaster, wrappings, or other materials will not be removed from bags, boxes, or other containers, in which it was shipped, without first wetting, enclosing or ventilating.

4.5 Employees engaged in the handling or removal of asbestos-containing material will wear approved respiratory protection. The individuals will normally be insulators, insulator helpers, and vehicle mechanics. This respiratory protection is mandatory at this location for all exposures to asbestos-containing material. Two types of protection are possible.

4.5.1 Normal Exposure: This is where the concentration of asbestos fibers is reasonably expected to be less than 10 times the permissible exposure limit. In this case, use the Comfo II respirator with the Type H Ultra Filter.

4.5.2 Heavy Exposure: This occurs when the concentration of asbestos is reasonably expected to exceed 100 times the permissible exposure limit. In this situation, a type "C" supplied air respirator in the positive-pressure mode shall be used along with a full facepiece mask.

4.6 Wetting of asbestos-containing material will be done in such a manner as not to wash the fibers into the ground, drainage trenches or sewer facilities. Any fibers contacting the ground will be gathered up and disposed of in approved containers.

4.7 Special wetting agents for asbestos-containing material are available ~~in the Sistersville Plant Store Room.~~ This material is designed to bind the asbestos fibers and reduce or eliminate the potential of dust generation. This wetting material will be used where practical.

4.8 ~~A special Vacuum Cleaner is available, with a special filter designed for 99.97% efficiency. This Vacuum Cleaner will be used where wetting is not appropriate, such as brake lining work, inside of structures, etc., and for removal of any asbestos-containing material on one's clothing.~~

4.9 Disposable Protective Clothing designed for exposure to asbestos-containing material will be used on all jobs involving the handling or removal of material containing asbestos.

4.9.1 Disposable Protective Clothing will be worn prior to contact with asbestos-containing material.

4.9.2 Disposable Protective Clothing will be removed at the work site and placed in approved containers.

4.9.3 Protective Clothing will be removed prior to coming in contact with other personnel, eating, smoking or using facilities used by other personnel.

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4.9.4 New Protective Clothing will be worn for each job or continuation of the job if the previously used Protective Clothing was removed.

4.10 Asbestos-containing material, including used disposable protective clothing, will be collected in impermeable, sealed bags or containers that are labelled according to Paragraph 4.12.

4.10.1 Within the shift that the job is completed, the craftsman or whoever collected the waste material will deliver the bags or containers to the asbestos waste area.

4.10.2 The appropriate supervisor will then notify the Contractor (Charlie Brown) within the same shift that asbestos waste has been delivered for burial.

4.10.3 The Contractor will bury the waste in compliance with federal regulations within 24 hours of being notified.

4.11 Contaminated clothing will be collected and transported ~~in sealed impermeable bags or closed containers, properly~~ labelled as described in Paragraph 4.12. ~~This clothing will be sent to a commercial laundry which has~~ facilities for handling asbestos ~~contained clothing~~.

4.12 Disposal Containers ~~or Laundry Bags~~ shall read:

- Caution -

Contains Asbestos Fibers Avoid Breathing Dust Breathing Asbestos Dust May Cause Serious Bodily Harm

4.13 When an employee has clothing (other than disposable type) contaminated or suspected to be contaminated with asbestos, the employee will:

4.13.1 Enter the "dirty room" facility provided BY CONTRACTOR for insulators and remove clothing.

4.13.2 Contaminated clothing will be placed in sealed containers and sent to laundry.

4.13.3 Enter the shower facility to wash off all asbestos fibers.

4.13.4 The employee will next enter the "clean room" facility and put on clean/uncontaminated clothing.

(R) 5.0 AUDIT:

5.1 The Dept. Head of Maintenance/Materials Management is responsible to audit performance as per "The Removal and Handling of Asbestos Materials" procedure using checklist audit form attached.

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Audit Checklist for the Removal and Handling of Asbestos Materials

1. Has operating area been notified that work will be performed in their area? Yes/No

2. Have operators been informed of procedures to follow? Yes/No

3. Is area adequately flagged off and signs placed in areas visible to foot traffic? Yes/No

4. Is the craftsperson wearing the proper equipment required for job? Yes/No

5. Has plastic been laid on ground to prevent contamination (where practical)? Yes/No

6. Has asbestos been wetted down prior to removal? Yes/No

7. Is material being placed in bags and sealed as it is being removed? Yes/No

8. Is contaminated clothing being removed and placed in bag prior to leaving job site? Yes/No

9. Has "dirty room" and shower procedure been followed? Yes/No

10. Has area been cleaned up and all flags and signs been removed? Yes/No

11. Has Charlie Brown been notified to bury the material? Yes/No

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